



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

A case of gross hematuria and IgA nephropathy flare-up following SARS-CoV-2 vaccination



To the editor: We read with great interest the report of Negrea and Rovin of 2 cases of IgA nephropathy with gross hematuria following the Moderna vaccine for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).¹ We also cared for a 52-year-old Asian female with prior biopsy-proven IgA nephropathy who developed gross hematuria within 24 hours of receiving a second dose of the Pfizer vaccine. Table 1 summarizes clinical data. Her workup was notable for proteinuria of 4.2 g/g of creatinine with serum creatinine at baseline. Of note, SARS-CoV-2 antibody testing prior to vaccination was negative, and she developed no symptoms after the first vaccine dose. Repeated testing within 1 week demonstrated resolution of hematuria and improving proteinuria. Interestingly, she developed gross hematuria following the first shot of the Shingrix vaccine 2 years prior but no symptoms following annual influenza vaccinations. The IgA nephropathy flare in our patient following the second SARS-CoV-2 vaccine dose without known prior exposure to SARS-CoV-2 suggests it was mediated by a delayed-type hypersensitivity reaction. Vasculitis flare-ups following vaccinations have been reported in the past.^{2,3}

Our patient's symptoms improved within a week without any intervention aside from continued renin-angiotensin-aldosterone system blockade. It has been reported that severe coronavirus disease 2019 (COVID-19) illnesses can trigger an IgA response in the bronchial mucosa.⁴ However, it is unclear how a nonmucosal vaccine triggers this response. We suggest that nephrologists closely follow their patients after COVID-19 vaccination to evaluate for varying degrees of flares, particularly after the second dose of an mRNA vaccine without prior exposure to SARS-CoV-2.

1. Negrea L, Rovin BH. Gross hematuria following vaccination for severe acute respiratory syndrome coronavirus 2 in 2 patients with IgA nephropathy. *Kidney Int.* 2021;99:1487.
2. Lambert EM, Liebling A, Glusac E, Antaya RJ. Henoch-Schönlein purpura following a meningococcal vaccine. *Pediatrics.* 2003;112:e491.
3. McNally A, McGregor D, Searle M, et al. Henoch-Schönlein purpura in a renal transplant recipient with prior IgA nephropathy following influenza vaccination. *Clin Kidney J.* 2013;6:313–315.
4. Hasan Ali O, Bomze D, Risch L, et al. Severe coronavirus disease 2019 (COVID-19) is associated with elevated serum immunoglobulin (Ig) A and antiphospholipid IgA antibodies [e-pub ahead of print]. *Clin Infect Dis.* <https://doi.org/10.1093/cid/ciaa1496>. Accessed September 20, 2020.

Shab E Gul Rahim¹, Jonathan T. Lin^{1,2} and John C. Wang^{1,2}

¹Division of Nephrology and Hypertension, Weill Cornell Medicine, New York, New York, USA; and ²Rogosin Institute, New York, New York, USA

Correspondence: Shab E Gul Rahim, Division of Nephrology and Hypertension, Weill Cornell Medicine, 525 East 68th Street, New York, New York 10065, USA. E-mail: SHABEGUL1@gmail.com

Kidney International (2021) **100**, 238; <https://doi.org/10.1016/j.kint.2021.04.024>

Copyright © 2021, International Society of Nephrology. Published by Elsevier Inc. All rights reserved.

Acute rejection after anti-SARS-CoV-2 mRNA vaccination in a patient who underwent a kidney transplant



To the editor: Anti-severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination is recommended in patients who underwent a transplant because of an increased risk of developing severe coronavirus disease 2019 (COVID-19), and mortality.¹ Because of a weak immunogenicity of mRNA 2-dose vaccines in transplant patients, the French

Table 1 | Patient symptoms and details of workup

Patient characteristic	Data
Year of IgAN diagnosis	2017
Exacerbations since diagnosis	1. April 2019 following URI 2. June 2019 following shingles vaccine
Current treatment	Lisinopril
Baseline Cre	0.7–0.8 g/dl
Last urine microalbumin/Cre before exacerbation (2020)	633.1 mg/g Baseline always <1000 mg/g, except exacerbations
Urine microalbumin/Cre 48 h after Pfizer second dose	2411.3 mg/g
Gross hematuria/RBCs in urine	Yes/yes
Other symptoms	Fever, myalgias, body aches, lower back pain bilaterally
Urine microalbumin/Cre 5 d after Pfizer second dose	1441 mg/g
Hematuria 5 d after Pfizer second dose	Resolved

Cre, creatinine; IgAN, IgA nephropathy; RBC, red blood cell; URI, upper respiratory tract infection.